

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A first node comprising:
one or more processors; and
memory;
wherein the memory stores program instructions executable by the one or more processors to implement:
receiving a request from a client application, wherein the request requires a transaction;
in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;
in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;
in response to receiving a reply to the second message from at least a quorum of the participant nodes:
returning an indication to the client application that the request was successfully processed; and
sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction.
2. (Previously Presented) The first node of claim 1,
wherein sending the third message to the plurality of participant nodes comprises sending the third message after returning the indication to the client application.
3. (Previously Presented) The first node of claim 1,
wherein the first message comprises a message requesting each of the participant nodes to reply by indicating whether they can commit the transaction;

wherein said receiving the reply to the first message from at least a quorum of the participant nodes comprises receiving a reply indicating an ability to commit the transaction from at least a quorum of the participant nodes.

4. (Previously Presented) The first node of claim 1,
wherein the second message comprises a message requesting each of the participant nodes to enter a state indicating that the transaction is to be committed;

wherein said receiving the reply to the second message from at least a quorum of the participant nodes comprises receiving a reply indicating entrance into the state indicating that the transaction is to be committed from at least a quorum of the participant nodes.

5. (Previously Presented) The first node of claim 1,
wherein the first message corresponds to a message for a first phase of a three-phase commit protocol.

6. (Previously Presented) The first node of claim 1,
wherein the second message corresponds to a message for a second phase of a three-phase commit protocol.

7. (Previously Presented) The first node of claim 1,
wherein sending the third message to the plurality of participant nodes completes the first node's involvement in the transaction.

8. (Previously Presented) The first node of claim 1,
wherein completion of the transaction does not require a reply to the third message from any of the participant nodes.

9. (Previously Presented) The first node of claim 1,
wherein each participant node commits the transaction in response to receiving the third message but does not return a reply to the third message.

10. (Previously Presented) The first node of claim 1,
wherein the request comprises a request to update a file;
wherein the transaction comprises a transaction to coordinate updates to multiple replicas of the file, wherein each respective replica is located on a respective one of the plurality of participant nodes.

11. (Previously Presented) The first node of claim 1,
wherein the first node is a node in a peer-to-peer network;
wherein the peer-to-peer network implements a distributed file sharing system.

12. (Currently Amended) A first node comprising:
one or more processors; and
memory;
wherein the memory stores program instructions executable by the one or more processors to implement:
receiving a request from a client application, wherein the request requires a transaction;
in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;
in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;
in response to receiving a reply to the second message from at least a quorum of the participant nodes, sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction;
wherein completion of the transaction does not require a reply to the third message from any of the participating nodes.

13. (Previously Presented) The first node of claim 12,

wherein sending the third message to the plurality of participant nodes completes the first node's involvement in the transaction.

14. (Previously Presented) A computer-readable memory medium storing program instructions executable to implement:

receiving a request from a client application, wherein the request requires a transaction;

in response to the request, sending a first message to a plurality of participant nodes participating in the transaction;

in response to receiving a reply to the first message from at least a quorum of the participant nodes, sending a second message to the plurality of participant nodes;

in response to receiving a reply to the second message from at least a quorum of the participant nodes:

returning an indication to the client application that the request was successfully processed; and

sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction.

15. (Previously Presented) The computer-readable memory medium of claim 14,

wherein sending the third message to the plurality of participant nodes comprises sending the third message after returning the indication to the client application.

16. (Previously Presented) The computer-readable memory medium of claim 14,

wherein completion of the transaction does not require a reply to the third message from any of the participant nodes.

17. (Previously Presented) The computer-readable memory medium of claim 14,

wherein the request comprises a request to update a file;

wherein the transaction comprises a transaction to coordinate updates to multiple replicas of the file, wherein each respective replica is located on a respective one of the plurality of participant nodes.

18. (Previously Presented) A computer-readable memory medium storing program instructions executable to implement a method comprising:

a first node receiving a request from a client application, wherein the request requires a transaction;

in response to the request, the first node sending a first message to a plurality of participant nodes participating in the transaction;

each of the plurality of participating nodes replying to the first message by indicating an ability to commit the transaction;

the first node sending a second message to the plurality of participant nodes;

each of the plurality of participating nodes replying to the second message by indicating entrance to a state indicating that the transaction is to be committed;

in response to receiving replies to the second message from at least a quorum of the participant nodes, the first node returning an indication to the client application that the request was successfully processed; and

the first node sending a third message to the plurality of participant nodes, wherein the third message instructs the participant nodes to commit the transaction.

19. (Previously Presented) The computer-readable memory medium of claim 18,

wherein sending the third message to the plurality of participant nodes comprises sending the third message after returning the indication to the client application.

20. (Previously Presented) The computer-readable memory medium of claim 18, wherein the method implemented by the program instructions further comprises:

each participant node committing the transaction in response to receiving the third message;

wherein the participant nodes do not send a reply to the third message to the first node.

21-22. (Canceled)